

DESCRIPTION PURSUANT TO K-C.3.5.7# - INDIVIDUAL TREE DESIGNATION (OPTION 1)  
(06/2008)

Subdivision	D x D Spacing	<u>1/</u> Description of Included Timber (See Other Requirements)
15	14 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, Ponderosa Pine and Mountain Hemlock, if it is within the Dx D Spacing of a live conifer with a larger stump diameter. All other species are not Included Timber.
20, 211, 24	12 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, Ponderosa Pine and Mountain Hemlock, if it is within the Dx D Spacing of a live conifer with a larger stump diameter. All other species are not Included Timber.
201, 203, 205	LTM	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, Ponderosa Pine and Mountain Hemlock, not marked with orange tree marking paint above and below stump height.

All	Contractor agrees to the following measures:
	<ol style="list-style-type: none"> <li>1. Down timber from adjacent private land will be protected from cutting and kept separate from Included Timber.</li> <li>2. All existing Orange Tree Marking paint is from previous timber sales and is not a designation for leave trees or reserve trees. See instructions in K-C.3# for specifics for reserve trees.</li> <li>3. Boundary trees are designated with orange tree marking paint and blue boundary cards.</li> <li>4. Boundary trees with orange paint and blue boundary tags shall be included in the DXD spacing when the boundary tree has a larger stump diameter than other trees within the DXD spacing. Boundary trees shall always "cut" a tree within subdivision/payment unit. Boundary trees shall not be cut.</li> <li>5. Orange painted trees within Group selects (LTM - Gaps) will not be Included Timber and are not to be cut.</li> <li>6. Orange painted trees within Dominant Tree Release (DTR) will not be Included Timber and are not to be cut.</li> <li>7. If orange painted buffer trees along streams are needed to be cut to accommodate a corridor, they shall be directionally felled into the channel and left on site.</li> <li>8. If Forest Service agrees to Contractor premarking units, trees within 50 feet of Forest roads will be marked on the back side of the tree facing away from road.</li> </ol>

Definitions:

- 1 D x D: Designation by Description.
- 2 LTM: Leave Tree Mark.
- 3 D x D Stump Height: Measure at 4 inches above the ground on the uphill side of the tree. When obstacles are present on the uphill side of the tree, measure 4 inches from the obstacles.

Other Requirements:

- 1 Minimum stump height left for inspection purposes will be 4 inches.
- 2 D x D Diameter: Measure at the DxD specified stump height 4 inches, outside the bark with a diameter tape that is perpendicular to the bole of the tree. Stumps missing all or part of their bark will be measured as presented. Measure to the nearest tenth of an inch.
- 3 D x D Spacing: Measure slope distance at 4 inches above the ground from the closest point between trees. This does not need to be measured on the uphill side of the tree.
- 4 All leave trees will remain standing.
- 5 Down Tree: a) An entire tree lying on the ground with an attached root wad;  
b) a root sprung tree with broken and exposed roots showing above the ground (root sprung trees must remain identifiable after logging).

REMOVAL SCHEDULE PURSUANT TO K-D.4.7# - ABNORMAL DELAY (05/2005)

<u>Included Timber</u>	<u>Time Limits</u>
ALL	60 days after felling is started.
All timber decked during construction clearing.	60 days after felling on each Specified Road constructed by Contractor is initiated.
Timber decked during road construction.	60 days after Forest Service authorizes Contractor to use roads pursuant to F.2.

PLANS AND/OR CRITERIA PURSUANT TO K-F.1.0.1# - TEMPORARY ROAD AND  
LANDING CONSTRUCTION (OPTION 1) (06/2010)

1. Temporary roads shall be constructed to a minimum width to accommodate logging equipment and shall be located to minimize the number of trees cut while minimizing the extent of ground impacted by construction.
2. All trees to be cut by the Contractor shall be identified and designated for cutting by the Forest Service prior to cutting.
3. On native running surfaces, hauling shall be restricted to when dry conditions exist. Hauling is restricted from October 15 thru May 15.
4. Clearing and grubbing debris shall be scattered in areas designated on the ground by the Forest Service.
5. Straw bales or other agreed upon erosion control devices shall be placed in ditches, as needed, to prevent sediment from entering stream courses. All straw bales will be certified weed free.
6. At the end of each season and/or when Contractor is done with the temporary road and/or termination of contract, Contractor shall install drivable drain dips and water bars and close the road to normal vehicular traffic, K-F.1.0.1#.
7. In accordance with G.2.2, Temporary Roads to remain open, to facilitate short-term access, Contractor agrees to leave temporary road open as directed by Forest Service.
8. Methods of closure shall be determined based on existing terrain conditions and needs at the time of closure.
9. Reopening of temporary roads may occur between May 31 and October 15.

PLANS AND CRITERIA PURSUANT TO K-F.1.0.1#  
TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2010)  
(Continued)

10. Other erosion control measures - to stabilize roads and prevent erosion on road grades over 8% may require a structure approximately every 100 feet. Seed and fertilizer for the road will be in accordance with K-G.6.0#.
11. Culverts shall be placed in all stream courses, along/across temporary roads. Culverts shall be corrugated metal pipe and shall not be less than 18 inches diameter.
12. Culvert installation in live streams shall take place between July 1 and August 15, K-G.3.1.5#. During culvert installation in live streams, the streams will be temporarily diverted around the site and biodegradable geotextile cloth will be placed downstream from the site to minimize transport of sediment, unless other methods are agreed to in writing with the Forest Service.
13. Culverts shall not be left in place after Contractor s operations are completed.
14. Landings shall be designed in accordance to G.4.2, shall be as small as operationally feasible, and shall be agreed to in writing by the Forest Service.
15. All landings will be designed to provide adequate drainage to protect the adjacent resources.
16. Areas to be covered with fill material shall be cleared of logs and cull woody material over 4 inches in diameter and/or 8 feet long.
17. Where side slopes exceed 45 percent, waste material shall be end-hauled to locations authorized in writing by the Forest Service.
18. Placement of rock ballast shall not take place unless mutually agreed to in writing by the Forest Service.
19. Rock ballast shall not exceed 4 inches in depth, unless mutually agreed to in writing by the Forest Service. Landing cut and fill slopes shall be left at no steeper than 1 ½ to 1 upon completion of contract operations.
20. Any culverts replaced shall be removed and disposed of by Contractor off of National Forest lands.



TABLE PURSUANT TO K-F.1.2# - USE OF ROADS BY CONTRACTOR. (9/04)

## Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
1900 <sup>1</sup> /	Aufderheide	Hwy 126	1900408	R	<sup>1</sup> / Haul on Road 1900 is not allowed evenings or weekends, or during long holiday periods (Memorial Day, 4 <sup>th</sup> of July and Labor Day), unless waived by Contracting Officer.  <sup>2</sup> / Haul will not be allowed on native surface roads outside the Normal Operating Season (June 1 to Oct 31).  Roads marked with asterisk (*) have limited strength and are likely to be damaged if used when adverse conditions exist in the roadbeds.
1900387 <sup>2</sup> /*		1900408	Unit 24	R	
1900393 <sup>2</sup> /*		1900408	End of Road	R	
1900408*		1900	Unit 24		
Borrow Haul					
1900410 <sup>1</sup> /		1900	Borrow Source at Strube flat	R	Haul on Road 1900410 is not allowed evenings or weekends, or during long holiday periods (Memorial Day, 4 <sup>th</sup> of July and Labor Day), unless waived by Contracting Officer.

TABLE PURSUANT TO K-F.2.2.1# - MATERIAL SOURCES. (9/04)

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
na	na	na	na	na	na	na

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO  
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)



ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Column No.	Heading	Entry	Explanation
	Any	Blank	Except as otherwise described, no entry indicates Contractor is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of contract related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Contractor shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Contractor shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Contractor shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Contractor may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Column No.	Heading	Entry	Explanation
5	Surfacing	Aggregate Grading	Contractor shall place surfacing on roads listed according to the grading indicated.
6	Dust Abatement	OPT	Product selection is Contractor's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Contractor is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Contractor shall abate dust on the existing width
		Numbers	Contractor shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or cross ditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Contractor prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Contractor's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	P	P denotes that work is Contractor's Responsibility to perform.

SCHEDULE PURSUANT TO K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

<u>Subdivision</u>	<u>Operation Conditions</u>	<u>Purpose</u>
All	Restrict yarding operations to the Normal Operating Season.	Minimize soil impacts
All	Restrict all operations approximately during the 3 <sup>rd</sup> week of October, including the Friday before, through the end of the following Friday.	Cascade bull elk rifle season.
All	All instream work for road reconstruction shall be restricted from July 7 through August 15.	Minimize impacts to water resources.
15	All contractual requirements shall be completed in the same Normal Operating Period as specified in the Timber Sale Contract.	Minimize impacts to soil and watershed resources and Road 1900393.

TABLE PURSUANT TO K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)FELLING METHODSSUBDIVISIONS

Directional felling shall be utilized to fall away from designated streamscourses, buffers, reserve trees, or as directed.

All

Directional felling shall be utilized to fall corridor trees into stream channel in riparian, as they are cut. Corridor trees will be left.

All

Directional felling shall be utilized to fall included timber into and/or toward gaps, wherever possible.

201, 203, 205

FELLING EQUIPMENTSUBDIVISIONS

The use of tree jacks, wedges or tree lining may be required, however, the required methods used shall not be limited to these options.

All

TABLE PURSUANT TO K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

<u>YARDING/SKIDDING REQUIREMENTS</u>	<u>SUBDIVISIONS</u>
If included in your Technical Proposal and accepted by the Forest Service, <u>ground based</u> yarding permitted/restricted to predesignated and approved skidtrails in subdivisions and portions of subdivisions as designated on Contract Area Map. (LTSR, Locate Tractor Skidroads).	All
Yarding and skidding is restricted to slopes 30% or less, unless, otherwise agreed to by the Forest Service.	All
No more than 2 mainline skidtrails or skidroads shall radiate from landings. Secondary or feeder skidtrail or skidroad use will be maximized in order to minimize the number needed and to avoid excessive compaction and/or disturbance.	All
No ground based operations within 120' of all designated streamcourses.	All
Skid trails will be spaced no closer than 100 feet, from center line to center line.	All
Pre-bunching equipment is permitted on slopes up to 45%.	All
Yard Tops Attached ( <u>YTA</u> ) will be required.	All
No fueling or fuel storage within 100' of a stream or body of water.	All



APPLICATION SCHEDULE PURSUANT TO K-G.6.0# - EROSION CONTROL AND SOIL  
TREATMENT BY CONTRACTOR (07/08)

	AREAS	SEED		FERTILIZER		MULCH	
Subdivisi on OR UNIT NUMBER	A) SKID TRAILS	APPLICATION		APPLICATION		APPLICATION	
	B) FIRELINES						
	C) TEMP. ROADS	SPECIES		TYPE 2/		TYPE 3/	
	D) LANDINGS	1/ MIXTURE	LBS/AC		LBS/AC		LBS/AC
	E) OTHER						
ALL	A, C, D.			N/A	N/A	N/A	N/A

Seed mixture will be a mix of the following: winter wheat, spring wheat, or triticale.  
Seed will be certified weed free (Blue tag). Application rate will be 40 lbs/acre.  
Contractor or sub-contractor that does the actual purchase of the seed will coordinate the  
acquisition of the seed with the Forest Service.

1/ For sales in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:

1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

For sales in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The contractor shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.  
Legumes must be inoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the inoculant.  
All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

2/ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.

3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's records.

All skid trails/roads used by Contractor that have a mineral soil exposed for lineal distances based on the slope of the skid trail.

Waterbars will be spaced every 100 feet on slopes less than 10%,  
Waterbars will be spaced every 75 feet on slopes of 10-19%,  
Waterbars will be spaced every 50 feet on slopes of 20-39%,  
Waterbars will be spaced every 25 feet on slopes greater than 40%.

Water bar locations should occur where local terrain feature facilitates effective drainage of the skidtrail. Install waterbars at a 45-degree angle to the slope, pointing downslope towards the drain of the slope. Outlet shall be lower than the inlet of the waterbar at all times. Side berms shall not occur, which, would negate the transfer action of the waterbar. The outlet of the waterbar shall be armored with material that is present to aid in the reduction of erosion at the outlet.

Treated areas shall span the total width of compaction. Water barring shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

DETAILED SLASH DISPOSAL PLAN PURSUANT TO K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2). (6/08)

**Contractor responsibilities are as follows:**

- A) **Treatment of slash/fuels less than 3 inches diameter:** All created slash less than 3 inches in diameter on the large end and over 3 feet long shall be treated by removing and piling at a designated location to meet required fuel loadings.

*\* Referenced in USDA Forest Service General Technical Report PNW-GTR-258 Photo Series for Quantifying Forest Residues in the Douglas-fir - Hemlock type of the Willamette National Forest on pages 46 and 47; the 1-DFWH-PRE-19. See attachment #1.2*

- B) **Treatment of slash/fuels 3 to 9 inches diameter:** All created slash between 3 and 9 inches in diameter on the large end and over 3 feet long shall be treated by removing and piling at a designated location to meet required fuel loadings.

*\*Referenced in USDA Forest Service General Technical Report PNW-GTR-258 Photo Series for Quantifying Forest Residues in the Douglas-fir - Hemlock type of the Willamette National Forest on pages 12 and 13; the 1-DFWH-PRE-02. See attachment #1.3*

- C) 0-3 inch material - 6.3 Tons/acre  
3-9 inch material - 4.8 Tons/acre  
**Residual slash will not exceed 8-12 Tons/acre**  
**See attachments #1.2 and #1.3.**

- D) **Construction and size of landing piles:** The offeror shall pile substantially all created slash at least 1 inch in diameter on the small end and at least 3 feet in length. Created slash shall be piled as compact as possible and free non-combustible materials. Landing piles shall be a minimum of 6 feet in height and 6 feet in diameter. Height of piles should not exceed 25 feet and should be approximately equal to the diameter. The area around each pile shall be cleared of all created slash a minimum of 6 feet. All pieces extruding from piles shall be bucked off to facilitate covering after construction.

- E) **Location of all landing piles:** Slash piles will be located to minimize damage of standing green trees and snags during burning. Unless otherwise agreed, this will be construed to be at least 15 feet from standing green trees and snags. Piles should not be built on tree stumps or heat sinks. Piles should not be located in the bottom of draws, streams, or ditches and should not obstruct roadways.

DESCRIPTION PURSUANT TO K-G.9# -STEWARDSHIP PROJECTS (09/2004)

Project Number 1 - Treatment of Slash/fuels

Project Number 2 - Road 1900393 Restoration.

**Introduction:** The objective is to reduce fuels on 83 acres and to remove the bio-mass from the landings or decking areas. This work is needed to reduce the risk of high intensity wildfire within the area. There are multi methods and different pieces of equipment and/or hand work that could accomplish the requested work.

**Mandatory Stewardship Project 1** - Treatment of Slash/fuels

Desired fuel loadings post-treatment: range is 8-12 tons/acre with 0-3 inch material not to exceed 6.3 Tons/acre, and the 3-9 inch material not to exceed 4.8 Tons/acre.

See attachment: 1.1 - Project Description, Desired End result, etc.

1.2 - Series 1-DFWH-PRE-19, Photo Series.

1.3 - Series 1-D FWH-PRE-02, Photo Series.

3.1 - Map Area #1, #2 and #3.

4.1 - Table of Mandatory and Optional Stewardship Projects.

**Introduction:** The objective is to stabilize and restore Road 1900393. There are multi methods and different pieces of equipment and/or hand work that could accomplish the requested work.

**Mandatory Stewardship Project 2** - Road 1900393 Restoration.

Desired stabilization of Road 1900393 and restore for project activity needs. This road will then be restored to a hydrological stable condition to drain properly and protect water quality.

See attachment: 2.1 - Project Description, Desired End result, etc.

3.1 - Map Area #1, #2 and #3.

4.1 - Table of Mandatory and Optional Stewardship Projects.